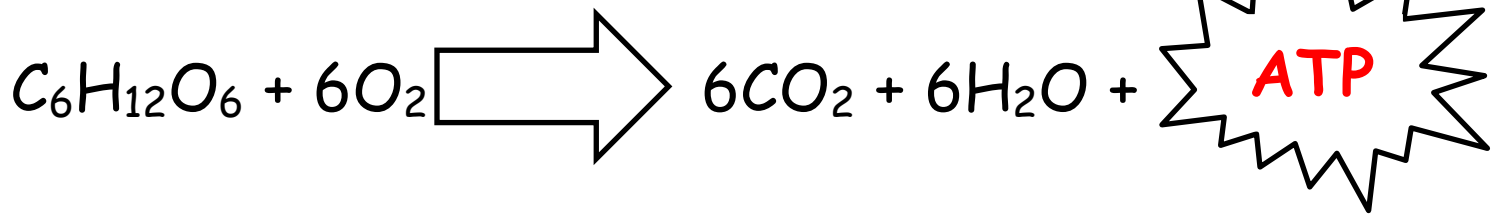


CELLULAR RESPIRATION



IMPORTANT DEFINITIONS

IMPORTANT COMPOUNDS

ANAEROBIC RESPIRATION

AEROBIC RESPIRATION

SITE & PRODUCTS OF EACH PHASE

Mitochondrion - Construction Site

Matrix - Krebs's Cycle (Citric Acid Cycle)

Christae - ETC

Aerobic - Requires O_2

Anaerobic - Absence of O_2

Glycolysis - sugar splitting

Fermentation - conversion of Pyruvate to stable compounds

Phosphorilation - creates ATP



IMPORTANT DEFINITIONS

REACTANTS

O_2

$C_6H_{12}O_6$

CARRIER MOLECULES

ADP + P = ATP

NAD + H^+ = NADH

FAD + $2H^+$ = $FADH_2$

Citric Acid + Acetyl Co A

PRODUCTS

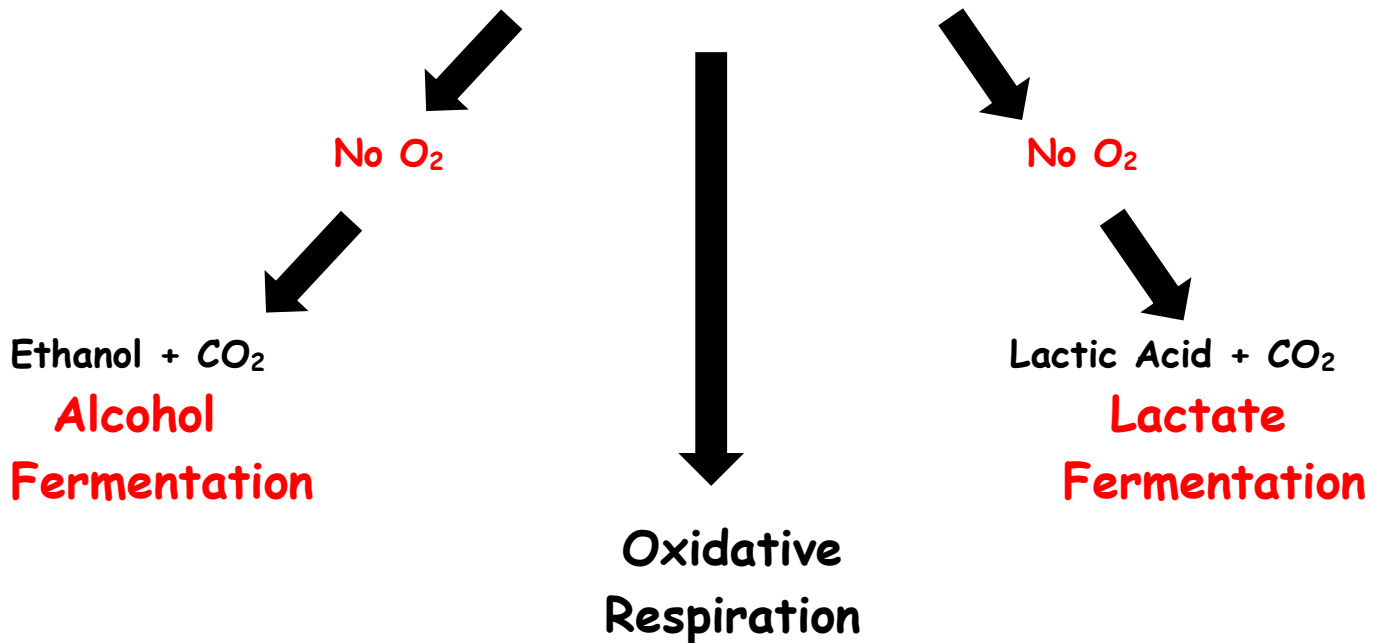
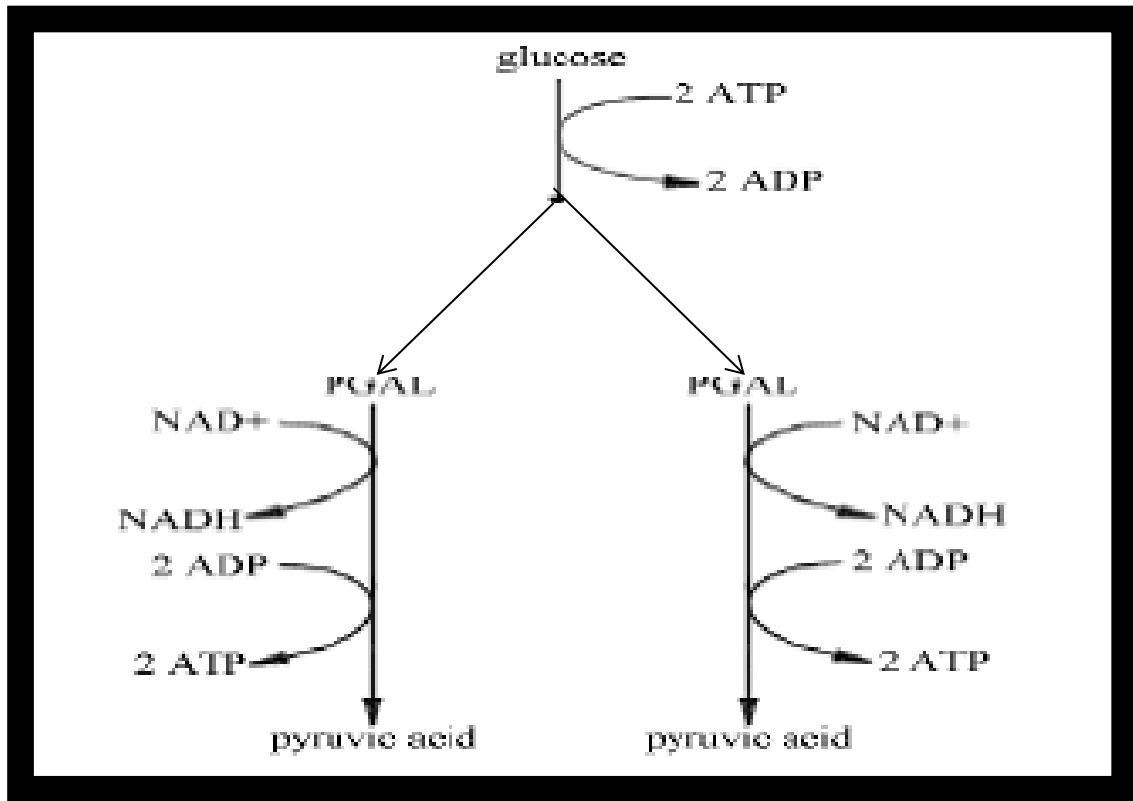
H_2O

CO_2

ATP

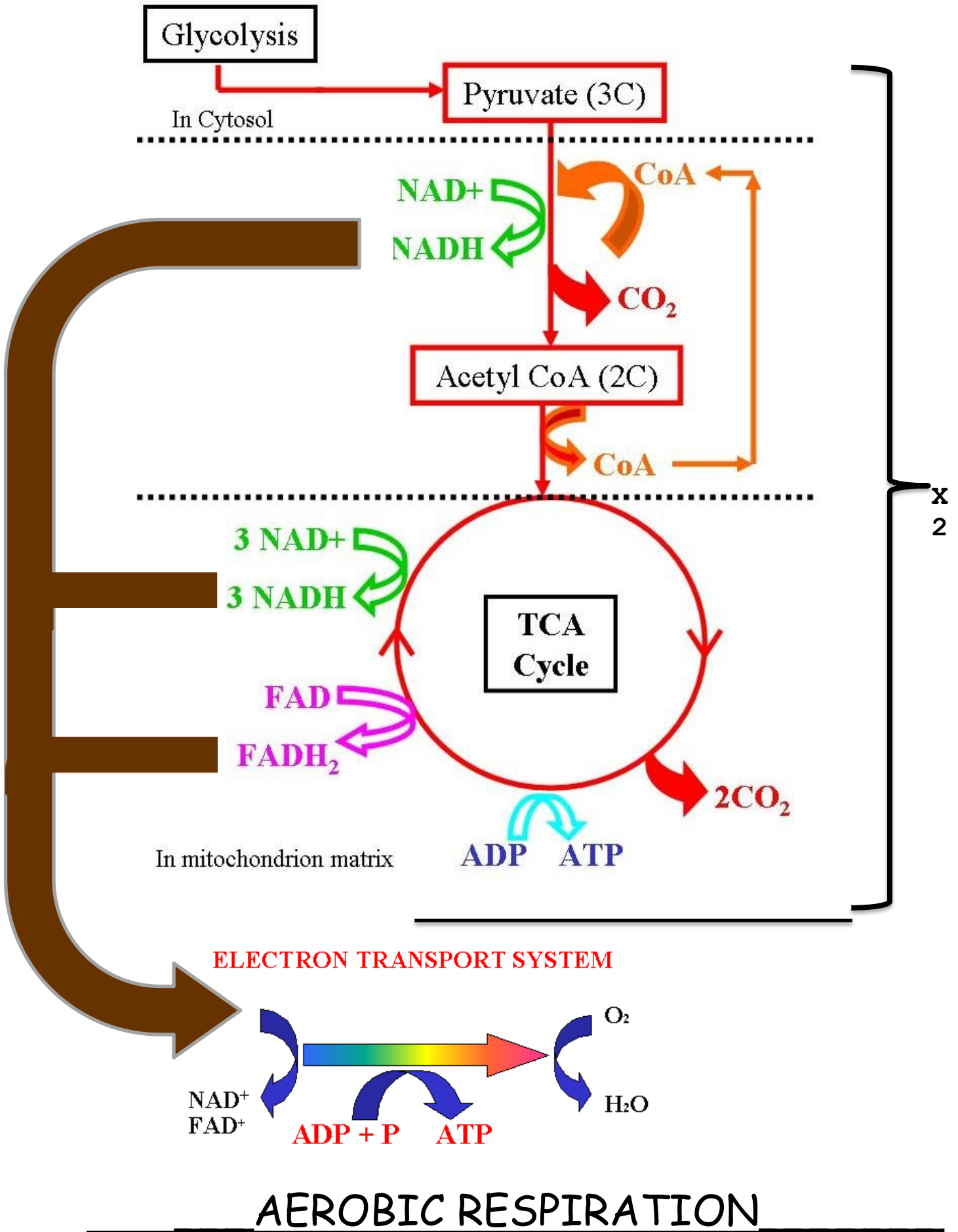
IMPORTANT COMPOUNDS

SPLITTING SUGAR (CYTOPLASM)



ANAEROBIC RESPIRATION

Break Down Pyruvate & Harvest H⁺ to Produce NRG



RESPIRATION

GLYCOLYSIS → Cytoplasm

1 $C_6H_{12}O_6$ produces:

2 pyruvate

2 NADH

2 ATP

} Anaerobic

KREB CYCLE → Matrix of Mitochondria

2 Pyruvate produce

: 2 ATP

: NADH

: $FADH_2$

: CO_2 (exhaled)

ELECTRON TRANSPORT CHAIN → Cristae of Mitochondria

: H_2O (exhaled)

: 32 ATP

} Aerobic

SITE & PRODUCTS OF EACH PHASE

OVERALL PROCESS = Complete Metabolism of Glucose

